

Code	Name	Description	Statistical Description
IDL	Instrument detection limit	The lowest concentration of an analyte that, when processed on a specific piece of analytical equipment, produces a signal/response that is statistically distinct from the signal/response arising from instrument "noise" alone	The concentration of analyte in STANDARD SOLUTION that produces an instrument signal/response that is X times the standard deviation above the "EXPECTED" IDL, where X is the student's t-statistic (at 99% confidence; n-1 deg. freedom)
DDL	Daily detection limit	Method detection limit that is calculated on a daily basis using laboratory blanks	The concentration of analyte in a laboratory blank that produces an instrument signal/response that is X times the standard deviation above the "EXPECTED" DDL, where X is the student's t-statistic (at 99% confidence; n-1 deg. freedom)
MDL	Method detection limit	The lowest concentration of an analyte that, when processed through an entire analytical method (including prep and equip), produces a signal/response that is statistically distinct from the signal/response arising from lab reagent blanks (zero values).	The concentration of analyte in SAMPLE MATRIX that produces an instrument signal/response that is X times the standard deviation above the "EXPECTED" MDL, where X is the student's t-statistic (at 99% confidence; n-1 deg. freedom)
SDL	System detection limit	The lowest concentration of an analyte that, when processed through the entire suite of sampling, transport, analysis, and data reduction operations, produces a signal/response statistically distinct from the signal/response arising from field blanks	The concentration of analyte in SAMPLE MATRIX that produces an instrument signal/response that is X times the standard deviation above the FIELD COLLECTION CONTAM. LEVEL, where X is the student's t-statistic (at 99% confidence; n-1 deg. freedom)
UDL	Sample-specific detection limit	Method detection limit that is calculated on a sample basis using lab reagent blanks and adjusting for sample volume.	The conc. of analyte in a lab reagent blank that produces an instrument signal/response that is X times the std. dev. above the "EXPECTED" UDL, divided by the volume of sample, where X is the students t-statistic (at 99% confidence, n-1 deg. freedom)
LOQ-L	Limit of quantification, Low	The lowest concentration of an analyte that produces a signal/response that is sufficiently greater than the signal/response of lab reagent blanks to enable reliable detection (and thus quantification) during routine lab operating conditions	The concentration of analyte in SAMPLE MATRIX that produces an instrument signal/response that is 10 times the standard deviation above the LAB REAGENT BLANK (at 99% confidence; n-1 deg. freedom)
LOQ-H	Limit of quantification, High	Description not available	Statistical description not available
CRDL	Contract required detection limit	The lowest level of detection specified as acceptable under the Statement of Work for the EPA Contract Laboratory Program	Variable, set by contract
CRQL	Contract required quantification limit	The lowest level of quantification specified as acceptable under the Statement of Work for the EPA Contract Laboratory Program	Variable, set by contract

Code	Name	Description	Statistical Description
MCL	Maximum contaminant level	Regulatory concentration for an analyte, set by the EPA in accordance with the Safe Drinking Water Act, above which drinking water is deemed unsafe	Variable, set by regulation
MQL	Method quantification limit	The lowest concentration of an analyte that produces a signal/response that is sufficiently greater than the signal/response of lab reagent blanks to enable reliable detection (and thus quantification) during routine lab operating conditions	The concentration of analyte in SAMPLE MATRIX that produces an instrument signal/response that is 5 times the standard deviation above the LAB REAGENT BLANK (at 99% confidence; n-1 deg. freedom)
RL	Reporting limit	The limit above which a laboratory feels confident in reporting its results. This limit is the level where the laboratory believes results are not subject to laboratory-induced contamination or other sources of bias	Variable, set by laboratory
PQL	Practical quantification limit	The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions	The concentration of analyte in SAMPLE MATRIX that produces an instrument signal/response that is 10 times the Method Detection Limit (MDL)
MDA	Minimum detectable activity	Radiochemistry: The net count rate that must be exceeded before a sample is assumed to contain measurable radioactivity above background levels	Count rate that is X times the standard deviation above the BACKGROUND counting rate, where X is the student's t-statistic (at 95% confidence; n-1 deg. freedom)
LLD	Lower limit of detection	Radiochemistry: The smallest concentration of radioactive materials in a sample that will yield a net count greater than zero	Count rate that is X times the standard deviation above either BACKGROUND or BLANK counting rate, where X is the students t-statistic (95% confidence; n-1 deg. freedom) corrected for count efficiency, fractional radiochemical yield, and sample mass/volume
LC	Critical level	Radiochemistry: The final instrument measurement of a quantity of analyte at (or above) which a positive amount of analyte is considered present	Count rate that is X times the standard deviation above the ZERO NET counting rate, where X is the student's t-statistic (at 95% confidence; n-1 deg. freedom)
RDL	Required detection limit	New term from the Federal Register ... to be investigated	New term from the Federal Register ... to be investigated
RQL	Required quantification limit	New term from the Federal Register ... to be investigated	New term from the Federal Register ... to be investigated

Name	notes/changes to make
Instrument detection limit	
Daily detection limit	
Method detection limit	check that definition matches or refers to 40 CFR pt. 136, appendix B, <i>revision 1.11</i>
System detection limit	
Sample-specific detection limit	need to add definition - work with Kim to develop definition consistent with other definitions
Limit of quantification, Low	
Limit of quantification, High	
Contract required detection limit	
Contract required quantification limit	

Name	notes/changes to make
Maximum contaminant level	
Method quantification limit	
Reporting limit	
Practical quantification limit	
Minimum detectable activity	
Lower limit of detection	
Critical level	
Required detection limit	
Required quantification limit	